Amendment to the Claims

1. (currently amended) A method of preparing a user recommendation ~~to be accessed by a user~~ comprising ~~the steps of~~:

~~providing~~ generating a sparse unary ratings matrix from a user's selected preferences, wherein said user's selected preferences are represented as binary data in said sparse unary ratings matrix;

forming a plurality of data structures representing said sparse unary ratings matrix;

forming a runtime recommendation model from said plurality of data structures;

determining a recommendation from said runtime recommendation model in response to a request for a recommendation ~~from a user~~; and

providing said recommendation in response to said request ~~to said user~~.

2. (original) The method of claim 1 further comprising calculating a unary multiplicity voting recommendation from said runtime recommendation model.

3. (original) The method claim 1 further comprising calculating a non-unary multiplicity voting recommendation from said runtime recommendation model.

4. (currently amended) The method of claim 2 wherein said ~~set step of~~ calculating a unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

5. (currently amended) The method of claim 2 wherein said ~~set step of~~ calculating a unary multiplicity voting recommendation comprises calculating a personalized recommendation.

6. (currently amended) The method of claim 3 wherein said ~~set step of~~ calculating a non-unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

7. (currently amended) The method of claim 3 wherein said ~~set step of~~ calculating a non-unary multiplicity voting recommendation comprises calculating a personalized recommendation.

8. (currently amended) The method of claim 1,

wherein said ~~step of~~ forming a runtime recommendation model from said plurality of data structures comprises:

mapping said sparse unary ratings matrix into a plurality of sub-space ratings ~~matrix~~ matrices;

wherein said mapping step comprises multiplying said unary ratings matrices by a mappings matrix between said unary ratings matrices and a plurality of categories [[;]] , and further wherein each of said sub-space ratings matrices corresponds to one of said plurality of categories.

9. (withdrawn) A method of preparing a recommendation to be accessed by a user comprising the steps of:

providing a sparse ratings matrix;

banding said sparse ratings matrix;

distributing said banded sparse ratings matrix to a plurality of computing nodes, wherein each of said computing nodes generates an output;

forming a runtime recommendation model from said output of said plurality of computing nodes;

determining a recommendation from said runtime recommendation model in response to a request from a user; and

providing said recommendation to said user.

10. (withdrawn) A method of preparing a recommendation to be accessed by a user comprising the steps of:

providing a sparse ratings matrix;

striping said sparse ratings matrix;;

distributing said striped sparse ratings matrix to a plurality of computing nodes, wherein each of said computing nodes generates an output;

forming a runtime recommendation model from said output of said plurality of computing nodes;

forming a runtime recommendation model from said plurality of sub-space ratings matrix;

determining a recommendation from said runtime recommendation model in response to a request from a user; and

providing said recommendation to said user.

11. (currently amended) A method of preparing a user recommendation ~~to be accessed by a user~~ comprising ~~the steps of~~:

~~providing~~ generating a sparse unary ratings matrix, wherein said sparse unary ratings matrix includes ratings data represented as binary data;

providing an update ratings data structure;

forming a plurality of data structures representing said sparse unary ratings matrix;

forming a runtime recommendation model from said plurality of data structures and said update ratings data structure;

determining a recommendation from said runtime recommendation model in response to a request for a recommendation ~~from a user~~; and

providing said recommendation in response to said request ~~to said user~~.

12. (original) The method of claim 11 further comprising calculating a unary multiplicity voting recommendation from said runtime recommendation model.

13. (original) The method of claim 11 further comprising calculating a non-unary multiplicity voting recommendation from said runtime recommendation model.

14. (currently amended) The method of claim 12 wherein said ~~set step of~~ calculating a unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

15. (currently amended) The method of claim 12 wherein said ~~set step of~~ calculating a unary multiplicity voting recommendation comprises calculating a personalized recommendation.

16. (currently amended) The method of claim 13 wherein said ~~set step of~~ calculating a non-unary multiplicity voting recommendation comprises calculating an anonymous recommendation.

17. (currently amended) The method of claim 13 wherein said ~~set step of~~ calculating a non-unary multiplicity voting recommendation comprises calculating a personalized recommendation.

18. (currently amended) The method of claim 11, further comprising:

mapping said sparse unary ratings matrix into a plurality of sub-space ratings matrices;

wherein said mapping step comprises multiplying said unary ratings matrices by a mapping matrix between said unary ratings matrices and a plurality of categories [[;]] , and wherein each of said sub-space ratings matrices corresponding to one of said plurality of categories.

19. (withdrawn) The method of claim 1, wherein forming a runtime recommendation model from a plurality of data structures, comprises:

forming a first recommendation model from said plurality of data structures; and

perturbing said first recommendation model to generate a runtime recommendation model.

20 - 26. (cancelled).

27. (withdrawn) The method of claim 1, wherein forming a runtime recommendation model from a plurality of data structures, comprises:

forming a first recommendation model from said plurality of data structures;

truncating said first recommendation model to generate a runtime recommendation model.

28 - 34. (cancelled).

35. (withdrawn) A method of preparing a recommendation to be accessed by a user comprising the steps of:

providing a first ratings matrix;

providing a second ratings matrix;

forming a runtime recommendation model from a cross-set of co-occurrences of said first ratings matrix and said second ratings matrix;

calculating a recommendation from said runtime recommendation model in response to a request from a user; and

providing said recommendation to said user.

36. (currently amended) A method of preparing a user recommendation ~~for a user~~ in a first recommendation system, comprising:

[[(a)]] receiving a runtime recommendation model from a second recommendation system, wherein the runtime model is formed from a plurality of data structures representing a unary array of entries that can be arithmetically manipulated, wherein data in the unary array of entries is binary data and wherein a majority of the entries in the array are zero;

[[(b)]] receiving a request for a recommendation ~~from the user~~;

[[(c)]] generating a recommendation using the received runtime recommendation model; and

[[(d)]] transmitting the recommendation ~~to a device associated with the user~~.

37. (currently amended) The method of claim 36, wherein said generating a recommendation ~~step (c)~~ comprises:

calculating a unary multiplicity voting recommendation from the received runtime recommendation model; and

generating an anonymous recommendation.

38. (currently amended) The method of claim 36, wherein said generating a recommendation ~~step (c)~~ comprises:

calculating a unary multiplicity voting recommendation from the received runtime recommendation model; and

generating a personalized recommendation ~~for the user~~.

39. (currently amended) The method of claim 36, wherein said generating a recommendation ~~step (c)~~ comprises:

calculating a non-unary multiplicity voting recommendation from the received runtime recommendation model; and

generating an anonymous recommendation.

40. (currently amended) The method of claim 36, wherein said generating a recommendation ~~step (c)~~ comprises:

calculating a non-unary multiplicity voting recommendation from the received runtime recommendation model; and

generating a personalized recommendation ~~for the user~~.

41. (currently amended) A method for generating a runtime recommendation model in a first recommendation system, comprising:

retrieving a unary array of entries that can be arithmetically manipulated, wherein data in the unary array of entries is binary data and wherein a majority of the entries in the array are zero;

receiving an update to the array of entries;

generating the runtime recommendation model from a plurality of data structures representing the unary array of entries; and

providing the runtime recommendation model to a second recommendation system, wherein the second recommendation system generates a recommendation ~~for a user~~ using the runtime recommendation model.